

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002531**Date Inspected:** 13-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Xu Xian Ping, See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Components**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector, M. Paul Stovall, was present at Zhenhua Port Machinery Company (ZPMC) on Changxing Island, Shanghai, China for the purpose of monitoring Quality Control (QC) functions during the fabrication of the Self Anchored Suspension (SAS) and Orthotropic Box Girder (OBG) sections of the San Francisco/Oakland Bay Bridge.

**OBG Pre-Assembly Area****Bay 2**

The QA Inspector observed ZPMC personnel bolting the Exterior and Interior Bolted Splice Connection plates on the 114-meter Mock-Up.

**Bay 3**

The QA Inspector observed ZPMC personnel fit and tack weld WT stiffeners on Side Plates (SP) SP469-001, SP119-001, and SP146-001. The ZPMC welders are Liang Yanhai, ID #066457, Li Zhaoqian, ID #048810, and Liu Daiquan, ID #066401. The weld process used was Shielded Metal Arc Welding (SMAW).

The QA Inspector observed ZPMC personnel grind the flame cut ends of W21 x 57's prior to the welding of Complete Joint Penetration (CJP) splices using the Flux Cored Arc Welding (FCAW) process.

---

## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

---

### Bay 4

The QA Inspector observed ZPMC welding personnel Jiang Jingteng, ID #046830 use the Submerged Arc Welding (SAW) process to weld Interior Tower Diaphragm Plate splice weld joint number SSD1-SA27-A/B-1A. The work appeared to comply with the contract documents.

### Bay 7

The QA Inspector observed ZPMC welding personnel Yuan Winsong, ID #055491 and Zhang Qing Quan, ID #044774 use the FCAW process for welding on Floor Beams (FB) FB005-03 and FB003-04. The work appeared to comply with WPS-B-T-2233-Tc-U4b-F and the contract documents.

The QA Inspector observed ZPMC QC perform Magnetic Particle Testing (MT) on the following Floor Beam welds: (FB): FB001-02-(02, 004, 013, 014, 021, 022, 023, 029, 030, 037 and 038), FB001-01-(004, 013, 014, 023, 037, 038, 047 and 048) and FB001—01-(010, 014 and 023).

### Bay 8

The QA Inspector observed ZPMC personnel starting the fit up of Diaphragm Plates SA326 to Pl632 in preparation for welding.

#### Summary of Conversations:

The QA Inspector had conversations as noted within the body of the report.

#### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

---

<b>Inspected By:</b>	Stovall,Paul
----------------------	--------------

Quality Assurance Inspector
-----------------------------

---

<b>Reviewed By:</b>	Hager,Craig
---------------------	-------------

QA Reviewer
-------------